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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,338	07/18/2003	Naveen Thumpudi	3382-66123	3293

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KLARQUIST SPARKMAN LLP  
121 S.W. SALMON STREET  
SUITE 1600  
PORTLAND, OR 97204

EXAMINER

MCFADDEN, SUSAN IRIS

ART UNIT	PAPER NUMBER
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2626

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05/25/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/623,338	<b>Applicant(s)</b> THUMPUDI ET AL.	
	<b>Examiner</b> Susan McFadden	<b>Art Unit</b> 2626	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on Application filed on 7-18-03.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-81 is/are pending in the application.
- 4a) Of the above claim(s) 1-40 and 77-81 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 41-47 and 57-76 is/are rejected.
- 7) ☒ Claim(s) 48-56 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-17, drawn to audio encoding, classified in class 704, subclass 500.
  - II. Claims 18-37 and 77-81 drawn to Encoding by chunks, classified in class 375, subclass 240.24.
  - III. Claims 38-40, drawn to quantization, classified in class 375, subclass 240.03.
  - IV. Claims 41-76, drawn to processing auxiliary information, classified in class 369, subclass 59.25.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I, II, III, and IV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different designs, modes of operation, and effects (MPEP § 802.01 and § 806.06). In the instant case, the different inventions determining pass signatures are not related to variable bitrate encoding at a uniform quality level.
3. Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required because the inventions have acquired a separate status in the art in view of their different classification, restriction for examination purposes as indicated is proper.

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4. Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required because the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper.

5. Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required because the inventions have acquired a separate status in the art due to their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

6. During a telephone conversation with Kyle Rinehart on May 16, 2007 a provisional election was made without traverse to prosecute the invention of Group IV, claims 41-76. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-40 and 77-81 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

7. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

#### ***Claim Objections***

8. Claims 48-56 are objected to because of the following informalities: It is unclear what is meant by "pass signature". Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 41-43,45,46, and 57-71 are rejected under 35 U.S.C. 102(b) as being anticipated by Uz (5,650,860).

In regard to claims 41-43,45, and 46, Uz shows in Figure 8, a method and medium for an audio encoder comprising: in a first pass, encoding media data; storing auxiliary information from the encoding in the first pass; and in a second pass, encoding the media data, including using the stored auxiliary information to increase speed of the encoding in the second pass (items 200-214, col. 22), wherein the auxiliary information comprises mask values (col. 5, ln 5-10), wherein the auxiliary information comprises channel transforms (col. 12-13), wherein the encoding in the second pass produces variable bitrate output around a target quality (Fig. 8).

In regard to claims 57-60, Uz shows in Figure 8, a method and medium for an audio encoder, using a multi-pass variable bitrate control strategy, the method comprising: in a first pass, encoding a sequence of audio data; and in a second pass, encoding the sequence of audio data in view of a goal of uniform quality at variable bitrate, wherein a peak bitrate constraint affects quality and bitrate in the second pass (Fig. 8, bit budgeting), wherein the audio encoder models a decoder buffer to test the

peak bitrate constraint (Fig. 8, item 210), wherein the audio encoder reduces a target quality to avoid underflow in the decoder buffer (Fig. 8, col. 3-4).

In regard to claims 61-65, Uz shows in Figure 8, a method and medium for an audio encoder comprising: selectively enabling or disabling a peak bitrate constraint for a sequence of media data (item 200); in a first pass, encoding the sequence of media data (item 202); and in a second pass, encoding the sequence of media data, wherein the peak bitrate constraint affects quality and bitrate in the second pass if the peak bitrate constraint is enabled for the sequence (item 214), wherein the media encoder models a decoder buffer to test the peak bitrate constraint (item 206), wherein the media encoder adjusts one or more control parameters to avoid underflow in the decoder buffer (item 208,210).

In regard to claims 66-71, Uz shows in Figure 8, a method and medium for an audio encoder comprising: in a first pass, encoding media data; processing results of the encoding in the first pass, wherein the processing includes setting a checkpoint at a defined percentage of a target total bit count for the media data; and in a second pass, encoding media data, wherein the encoding in the second pass includes checking results of the encoding in the second pass as of the checkpoint (items 200-214, scaling Bi is setting a checkpoint); wherein the encoding in the second pass further includes adjusting a target quality level based at least in part upon the results of the encoding in the second pass as of the checkpoint (item 210); further comprising, at the checkpoint, computing a subsequent checkpoint at a multiple of the defined percentage of the target

total bit count, wherein the encoding in the second pass further includes checking results of the encoding in the second pass as of the subsequent checkpoint (item 214).

11. Claims 66 and 70 are rejected under 35 U.S.C. 102(b) as being anticipated by Holiday (6,421,739).

In regard to claims 66 and 70, Holiday shows in Figure 2, a method and medium for an encoder comprising: in a first pass, encoding media data; processing results of the encoding in the first pass, wherein the processing includes setting a checkpoint at a defined percentage of a target total bit count for the media data; and in a second pass, encoding media data, wherein the encoding in the second pass includes checking results of the encoding in the second pass as of the checkpoint.

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Uz (cited above).

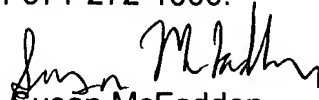
In regard to claim 44, Uz shows the audio encoding system and method discussed above. Uz does not specifically show that the auxiliary information comprises tile configurations. The Examiner takes Official Notice that one of ordinary skill in the art would know that tile configurations can contain auxiliary information.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan McFadden whose telephone number is 571-272-7621. The examiner can normally be reached on Monday-Friday, 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on 571-272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Susan McFadden  
Primary Examiner  
Art Unit 2626

May 22, 2007